REMARKS/ARGUMENTS

Reconsideration of the subject application, as amended, is respectfully requested.

Claims 1-16 are pending in the subject application. Claim 1 has been amended to recite that the cable modem functions include interfacing with cable media. Support for this amendment is found in the implementation examples of Figures 1 and 2, and the illustrated interfaces to the HFC or RF external sources.

In the February 5, 2010 Office Action, made final, the Examiner rejected claims 1-16 under 35 USC 102(e) as being anticipated by Brooks (U.S. 2001/0039600) ("Brooks '600"). (See, Office Action, p. 3.) Claim 12 was rejected under 35 USC 112, first paragraph, as failing to comply with the written description. Claims 12-14 were rejected under 35 USC 112, second paragraph, as indefinite.

A Request to Withdraw Finality and Response to Final Office Action was filed on April 5, 2010 in which claims 1 and 12 were amended to address the Examiner's section 112 rejections, and it was pointed out that there was continued uncertainty as to how the Examiner was interpreting and applying the disclosures of Brooks '600 to the claims at issue. More specifically, it was pointed out that in Brooks '600, only two processors were disclosed. Therefore, from the Examiner's position that "the data networking engine and cable modem engines are represented in figures 1 and 2" (Office Action, p. 8), it would follow that one of the two processors corresponded to the networking engine, and the other of the two processors corresponded to the cable modem engine. It was further pointed out that while the discussion concerning Figure 2 in Brooks '600 paragraph 0042 makes clear that cable modem functions are performed by CMAC unit 224, if the cable modem engine is to contain a processor and perform CMAC functions as claimed, the cited cable modem engine must include circuitry

to connect one of the processors with the CMAC unit. It was noted, however, that because available connecting circuitry would be shared by both the one processor and the other processor, the asserted cable modem engine and home networking engine could not be completely partitioned as claimed.

In the Examiner's Advisory Action (notification date May 11, 2010) the Examiner withdrew the section 112 rejections, continued the finality of the 102(e) rejection, and provided a limited further explanation of his view of how the disclosure of Brooks '600 applies to the pending claims. However, despite this further explanation, it is still not clear as to what the Examiner considers to be the cable modem engine and the data networking engine in Brooks '600.

The Examiner explained that:

> Brooks' abstract, for example, discloses bifurcated processing architecture. The first processor processes information flowing to and from cable media interface circuitry. This constitutes the data networking engine, which performs the interacting with equipment, as claimed. The second processor performs the management of some message processing and scheduling, which constitutes cable modem functions other than those of the data networking engine (please see paragraph 0026). This the constitutes the cable modem engine, as claimed. Claim 9 of the Brooks reference further teaches partitioned processors, where the co-processor supports the processing of cable media and performs data transfer, and the first processor performs a plurality of other processing functions.

(Advisory Action Before Filing of an Appeal Brief, sheet 3.)

First of all, the Examiner's assertion that "[t]his constitutes the data networking engine, which performs the interacting with equipment, as claimed" appears to equate the "cable media interface circuitry" with the "customer provided equipment" of, for example, claim 1. Presumably, the Examiner is referring to the CMAC/CPHY block (114, 118, 224 and 228) of Fig. 2 as the cable media interface circuitry. However, Brooks '600 does not describe such blocks as customer provided equipment. Thus, it is not clear what the Examiner considers to correspond to "customer provided equipment" in Brooks '600.

Further, from the above explanation, it appears that the Examiner may be asserting that the cable modem engine includes second processor 104, that the data networking engine is first processor 102 (see Fig. 2), and that the CMAC/CPHY block (114, 118, 224 and 228) is also a part of the cable modem engine. However, processor 102 handles many cable modem functions (see Fig. 4, paragraphs 0053 to 0062), and is explicitly described as "programmed to implement the desired MAC functionality" (paragraph 0026). Paragraph 0025 states "[i]n the case of DOCSIS, typical MAC functionality includes MPEG and MCNS decoding and frame synchronization." On the other hand, processor 104 is described only as providing operating system support and that it "may manage some message processing and scheduling" (paragraph 0026, emphasis added). Thus, the Examiner's designation of the first processor as the "data networking engine" is at odds with the Brooks '600 description of processor 102 as being "programmed to implement the desired MAC functionality."

The Examiner's apparent designation of the first processor 102 in Brooks '600 as the "data networking engine," and the second processor 104 and the CMAC/CPHY block (114, 118, 224 and 228) as the "cable modem engine," further does not square with the claim 1 feature that "the cable modem functions performed by the cable modem engine are completely partitioned from the home networking functions performed by the data networking engine," and the claim 15 feature of "partitioning the data networking engine from the cable modem engine so that the data and home networking functionality is completely decoupled from the DOCSIS and VOIP functionality." This is because the CMAC/CPHY block (114, 118, 224 and 228) communicates with both the processors 102 and 104 by sharing the same data paths and sharing the same direct memory access controller. (See peripheral bus 112 – bridge 110 – system bus 108 in Fig. 1 and APB 214 – DMA Controller/ASB-APB Bridge 212 – ASB 210 in Fig. 2, and paragraphs 0034 and 0035).

Further, accepting the Examiner's assertion that first processor 102 handles data networking functionality, and considering the description of paragraphs 0025 and 0026 that processor 102 is programmed to implement the desired MAC functionality (which would include typical DOCSIS MAC functionality), leads to a conclusion that the Brooks '600 processor 102 does not implement a complete partitioning or a completely decoupled arrangement of the data networking engine from the cable modem engine.

Thus, Brooks '600 does not provide the complete partitioning or completely decoupled arrangement of the data networking engine from the cable modem engine that the Examiner apparently asserts it does.

For at least the above reasons, it is respectfully submitted that Brooks '600 does not teach or make obvious the claimed subject matter.

The Examiner also asserts that claim 9 of the Brooks reference:

> further teaches partitioned processors, where the co-processor supports the processing of cable media and performs data transfer, and the first processor performs a plurality of other processing functions.

(Advisory Action Before Filing of an Appeal Brief, sheet 3.)

It is respectfully submitted that the description that the "co-processor supports the processing of cable media and performs data transfer" (emphasis added) indicates that there is no partitioning of cable modem functionality from data networking functionality in the co-processor, but instead a combining of the same. Thus, claim 9 of Brooks '600 does not support the Examiner's rejection of the claims of the subject application.

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

The undersigned attorney would welcome an opportunity to discuss the claims as amended and Brooks '600 with the Examiner in order to better understand the Examiner's interpretation of the same, and to advance the subject application toward allowance.

Respectfully submitted,

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